

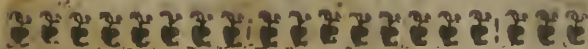


Mr. *Walton's*

ESSAY

ON

Fevers, the Rattles, and Canker.





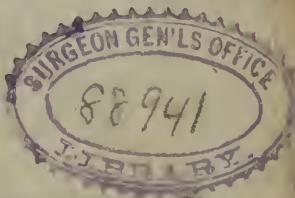
A N
ESSAY
O N

Fevers, the Rattles, & Canker.

By *John Walton, B. A.*

And Practitioner in *Physick.*

Pondere Mensurâ & Numero Deus omnia fecit.



B O S T O N :

Printed by *T. Fleet*, at the *Heart and Crown* in
Cornhill, and Sold by *T. Hancock*, at the *Bible*
and *Three Crowns* in *Anne-Street*. 1732.



An ESSAY on

Fevers.

AMONG the many Blessings the great Author of our Beings has bestowed upon us, there is nothing but our Eternal Salvation, and the Means thereof, that may be justly esteemed of equal Value to our Health; without *this*, all worldly Enjoyments would have but a miserable Relish. 'Tis *Sickness* that makes Crowns sit uneasy on their Royal Masters Heads, and draws dark Shades over the brightest Sunshine of worldly Fortune. Hence the generous and grateful Part of Mankind, have always lov'd and honour'd those Divine Physicians, who under God have been the Means of easing their Pains, and restoring or preserving their Health. And although the Art of Healing be exceedingly improv'd, yet new Ideas present themselves to the curious and sedulous Students in that excellent Art. And inasmuch as this Land has but few learned Physicians, and is much imposed on by a
rude

rude Company of *Empyrical Quacks*, who know little or nothing of the Reason of their Practice; therefore does it concern us all to encourage the regular Study and Practice of *Physick*. For as we are all subject to Sickness, and *Heirs of Death*, and startle at the Thoughts of encountering the *King of Terrors*, or of languishing under the Distresses of terrible Diseases; so should we all according to our several Abilities, contribute something to our common Safety. The *Physicians* and *Apothecaries* should store themselves with Learning and Honesty, and the Country in general should disregard the *unlearned Quacks* and *drunken Empyricks*, and should put such a Value on a good Physician, which would encourage the wise and learned to study and Practice the Art of Healing.

And seeing the greater part of the Humane Race are attack'd and conquer'd by *Fevers*, and especially inasmuch as they rage frequently in our *English America*, and we have had no very learned *Boerhave*, *Pitcairn*, *Friend*, *Sydenham*, *Quincy*, *Turner*, *Mead*, *Morgan*, *Shaw*, *Keil*, &c. to direct us in the Reason of those Things, we have therefore in our Infant State been too much imposed on by *Culpeper*, *Salmon*, &c. they being well adapted for the Use and way of thinking of our *Quacks*; *Sed Tempora Mutantur, & nos Mutamur in illis*. *New-England* 'tis hoped may boast of her learned Sons, who improve daily in the Study of *Physick*, according to Mechanical Principles: We have now the *European* Lights streaming into our Studies, to dispel the Occult Qualities of the dark Guides of the *Empyricks*; we have also one of the learned Licentiates of the Royal College of
Phy;

Physicians in *London*, lately come over the *Atlantic*, who has reformed and corrected the *The-riaca*, and will, 'tis hoped, correct other Medicines, and do many other Things to the Advantage of *Physick*.

And although I would not pretend to exalt my self, or expect to do the Service some others might do, yet I hope this Essay may be of some Service to the distressed Part of Mankind, and may give the Hint to others to improve further on the same noble Theme. I shall therefore proceed to define a *Fever* to be that Idea which is caused by some great Obstructions of the Circulation and Secretions of the Vital Fluids, especially in the Glands.

Here I shall give some Account of the Febrile Obstructions. 2d. Shew their Symptoms. 3d. Shew the Ratio of their Cure, especially of those most frequent in this Country.

Here observe, That Health very much consisteth in a due Circulation and Secretion of the Vital Fluids: And that these Fluids are separated from the grosser Parts of the Food, and strain'd through the Lacteals of the first sort, and convey'd to the Glandules, in the Mesentery, then by the secondary Lacteals to Monsieur *Recquet's* Receptacle, thence by the Thoracick Duct to the left subclavian Vein, where it meets with the Blood, thence by the descending *Vena cava* to the right Ventricle of the Heart, thence by the Pulmonary Artery to the Lungs, then by the Pulmonary Vein to the left Ventricle, thence (except what passes into the Coronary Arteries to nourish the Heart) the Blood passes out in the Arteries to the

the extreme parts of the Body; in which Course it strains off much *Serum* through the Glands, which is conveyed by the Lymphaducts, some to the Receptacle of the Chyle, and some to the Veins in all parts of the Body to dilute the Blood; and that the purest or finest Particles of the Blood are strained through certain Glands in order to form the *Serum*, and what we call Spirits, and also the Blood passes through the small Divisions and Evanescient Capillary Branches of the Arteries, the superfluous and heterogeneous Particles are strain'd off by the expurgatory Glands, and the rest (except what is drain'd off for the Nourishment of the Body) is absorb'd by the Capillary Veins, and convey'd again to the right Ventricle; and so in a perpetual Round, passing about six Times the Quantity of the whole Mass of Blood through the Heart in an Hour, and three times through the Lungs, where the Air gives it an Impetus as well as Colour, and preserves the Globules from running too much into mutual Contacts. Now if we consider how fine the Channels are through which the Fluids pass, it is reasonable to suppose, that their Circulation will be obstructed by a Lentor in the Blood, caused by Morbifick Particles in the Air. Hence *Fevers* are Epidemical, because the Air is impregnated with viscid fabulous grumy arsenical Particles, which being imbib'd in the Lungs, as well as cuticular and miliary Glands, must needs obstruct the Circulation and Animal Secretion. Hard Drinking, high Feeding, using too little or unsuitable Food, taking Cold, a Depletion, or want of Spirits, or a Plethora; in a Word, whatever Particles are viscid;

cid, serous, fabulous or grumy, or hinder the Elasticity of the Solids, or cause a Plethora, or Depletion, or too much rarify the Blood, tend to obstruct the Fluids, and cause a *Fever* of one Kind or other. *N. B.* Every irregular Motion of the Fluids that gives an Idea of Heat, is not a *Fever*.

I now proceed to shew the Effects of such Obstructions which attend *Fevers*. And first, there is a sense of Cold, followed with a preternatural Heat; the Reason whereof is, because the Morbifick Particles stop the Motion of the Blood, and thereby occasion that Relative Idea we call *Cold*; and this is commonly the more so, because the *Serum* being detain'd in the Blood Vessels, causes a Plethora, which containing saline, viscid and damp Particles, must needs by their great cohesions hinder the Circulation of the Blood, distend the Arteries, and cause Pain and Chilliness, which is followed with Heat, being occasioned by the Impetus of the Blood struggling hard to break open the Obstructions, raise the Blood Globules, and hinder their too great cohesions. Now while so many different Particles are mixed together in the Blood Vessels, and forced on by the Air in the Lungs, together with the Muscular Force of the Heart, and at the same Time obstructed on the other side in the Glands and Lymphaticks; this must needs at first cause a general Shudder in Nature, but then as soon as Nature gets the upper Hand, by the help of Medicines, or the Elastick Force of the Fibres, or whatever gives the Fluids a Momentum, there arises a preternatural Fermentation, and a sudden rushing of the Fluids into

the empty Spaces of the Blood Vessels, then frequently come on Evacuations in the common Drains, especially by Sweat: And thus by the uncommon Motion of the Fluids, the Soul has the Relative Idea called *Heat*, which by its Violence becomes Inflammatory; hence we name the *Fever* according to the Degree and Quality of the Obstructions and Inflammation, the Place where it principally seizeth, and the Time it lasteth. So an *Habitual Fever* is called a *Hectick*; so a *Fever* is called the *Pleurisy*, because the *Pleura* is chiefly inflamed. Another is called, *A Nervous Fever*, when the Obstruction is originally in the *Nerves*. So the *Sciatica*, *Podagra*, &c. Also a *Fever* is called *Malignant*, and *Putrid*, when the Obstructions and Inflammations are very great, and the Animal Fluids cohere in Bulks and Dispositions different from the Use of the Machine and Secretory Organs: One also is called the *Long*, and another the *Winter Fever*, another the *Fever and Flux*; some are called *Continual*, some *Remitting*, and some *Intermitting*; some are called *Effluent*, others *Influent*, by Reason of the Course the Morbifick Matter steers; but let them be distinguish'd *ad libitum*, yet they all proceed from Obstructions, whose Matter Nature struggles to throw off: and in *Intermittents*, when Nature has ejected considerable Morbifick Particles, the Patient has Respite, till more of the same sort gather, and then Nature ejects again, as he that would not sink in a leaky Vessel, when the Water rises high in the Hold. But in *Continual Fevers*, Nature is forced to be diligent at her Work, like those in the *Holland Work-House*; and thus she strives, till all the Mor-

Morbifick Matter be ejected ; or else being tired out by unequal Struggles, till the contracted Force of the Solids fails to depurate the Blood, and then at last yields its self a Victim to Death, who as he approaches, gives a fatal Stop to the Circulation of the Fluids, beginning usually at the extreme parts, where the Channels being very fine, and far distant from the Heart and Lungs, and therefore the Impetus and Momentum of the Blood are there smallest, and the Fluids consequently stop soonest.

Secondly, A quick irregular Pulse is another Effect of Obstructions ; which is, because the inflamed viscid Blood distends and inflames the Glands and Muscular Flesh, stimulates the Nerves, and excites them to throw off the Morbifick Matter, in order that the Blood may well circulate. And as this Stimulus proves unequal, so will the Pulse be unequal.

Thirdly, There is a disturb'd Respiration, which is caused partly by the aforesaid unequal Stimulus, and partly by the Phlegm which stops up the minute Branches of the Windpipe in the Lungs.

Fourthly, The Urine will be florid in Colour, small in Quantity, with scarce any Sediment ; and this because the Kidnies and other Glands are obstructed, which being opened at the Crisis the viscid Matter drains off, and the Urine grows thick and settles.

Fifthly, The Tongue will be parched and dry, which

which is occasioned by the Obstructions of the Lymphatick Vessels, and Secretory Ducts of the Glands.

Sixthly, The Stomach will be over heated, and the Food therein ferment and rarify, and be wrought into an undigested Flatus, and nothing pass through the Lacteals, but the minutest Particles; so that Nature will loath Food, and covet only thin cool diluting Liquors. These are the common Symptoms of *Fevers*, and Effects of Obstructions; but sometimes there are many others, such as *Comatose*, *Deliria*, *Apoplexies*, *Convulsions*, *Palsies*, &c. which are caused by Obstructions, and those most commonly in the Nerves, and in the Glands of the Brain; 'tis common also for Obstructions to cause bloody Secretions and livid Spots, by forcing the Blood out of its common Passages: Also Morbifick Matter is hereby cast on any or every part of the Body, which causes various Diseases, such as *Scurvy*, *Jaundice*, *Dropsy*, *Consumption*, *Astma*, *Canker*, *Cancer*, *Quinsey*, *Orasipelas*, &c.

In every *Fever* there are three States or Periods.

1st. While the Obstructions are increasing and the *Fever* rising.

2dly. While the *Fever* stands at a Stay.

3dly. The Crisis, or Time when Nature gains the Victory, and dischargeth the Morbifick Matter so fast, as that the Patient grows better daily. And that a salutary Crisis may be obtained, let us proceed to the Ratio of the Cure.

In Order hereunto, we must consider whether there be a Plethora, or Depletion; in a Plethora
bleeding

bleeding and purging are good, but *e contra* in a Depletion. I must here shew, that bleeding is then of Service, when it gives Room to the Fluids to circulate without crouding too hard against the sides of their containing Vessels, and gives the Blood an Impetus, by exhausting a part of it, and binding the Ligament so as that the returning Blood is partly stop'd thereby, and drain'd off by the Orifice, whilst that between the Ligament and the Heart returns to the Heart; so that as soon as the Ligament is unty'd, the Blood flows with Violence into the empty Spaces, to gain an Equability, and thereby oftentimes breaks open Obstructions, and gives the Fluids Room to circulate without Extravasating. In a Plethora all Evacuations may be more freely used; and in a Depletion Cordials must be much depended upon, and in some *Nervous Fevers* the Lancet brings Death; and much purging does hurt, by defrauding the Solids of their proper Moisture, and diverting the perspirable Matter from a cutaneous discharge thro' the Milliary Glands. Here then observe three grand Intentions of Cure.

First, Strengthening Cordials to be used according to the Strength of the Patient, to support the Elastick Force of the Solids, and to supply the wasting Spirits, being assimilated thereunto by the individuating Principle of Life, which by the help of the Glands disposeth them for the Use of Life.

2dly. To cool and dilute the Blood, till Nature has Time to eject the Febrile Matter.

3dly. To attenuate and eject the Morbifick Matter, especially through the expurgatory Glands, which must always be kept open: And this is not per-

performed as the *Galenists* supposed, *viz.* by cold Medicines, but is principally effected by attenuating, absorbing and restringent Medicines, all to be applied according to the Strength of the Patient. The celebrated *Cortex Peruvianus* seems (under a proper Management) to claim the first place. Blisters also are of great Service in most *Fevers*, and Diaphoreticks seldom fail of doing good Service, and especially to those Women who are troubled with *Fevers* in the time of their lying in Child-bed. Diureticks are also very serviceable in *Fevers*, by discharging the Morbifick Matter that way. Vomiting and Purging also do frequently eject the heterogenous Matter, if duly administred. And here I am obliged to differ from the learned Dr. *Morgan*, who forbids urging a *Fever* to its Crisis by Sweats, &c. because he says, *We must follow Nature in her Method of curing Fevers*, which he says, is by shutting up the common Drains. But I would here offer, that I think 'tis the viscid Morbifick Matter that shuts up the Drains, and that Nature struggles with all her Might, to keep them open as they are in a State of Health. And if we do but consider how wonderfully the Glands and other Organs are adapted to eject all disagreeable Matter, and how Nature heaves with uneasy Struggles, whilst the common Drains are shut up, and what sudden Relief she finds when they are opened by the Shocks of a Vomit, or the attenuation of Sudorificks, Chalybiates, Mercurials, or such like, we need no more question whether such Evacuations are serviceable or not: But the great Difficulty lies in adjusting their due Proportions, that so Nature may be assisted and not overdone.

I shall therefore give the young Practitioner a few Directions with respect of the Cure of those Fevers most frequent in *New-England*.

For *Physick*, use *Rhubarb*, *Fallap* and *Ipecacuanha*, with as much *Mercurius Dulcis* as will cause a Ptyalism, especially when the Tubuli of the Trachea are obstructed, proportion these so as to Vomit or Purge *ut res postularit*: Let the Cortex be given in all Intermissions a Dose in four Hours, mixed up with *Philon. Rom.* in Fluxes, and sometimes with *Æth. Min.* or *Black Helebore*, or *Snake-Root*, as Occasion serves; and let this and the *Elixir Vitrioli* be very much depended upon, as what some call *Specificks*; let also the Golden Spirit of *Venice Treacle* be used, and *Aq. Theriacalis*, and *Syr. Croci.* with *Elixir of Camphire* be used for Sweats; let Compound Spirits of *Lavender* and *Aq. Cælestis* with Confection of *Alkermes* be used for Cordials, as also Dr. *Harward's* Electuary should be used as an Alexiterial Cordial; *Diaphoretick Antimony* with *Aq. Theri.* and *Syr. Croci.* makes a good Sweat, especially for Women with Fevers in Child-Bed: *Sal. Vol. Oleosum* with *Aq. Hung.* is good, especially when there is Pain in the Head. *Lapis Contrayerva* is a fine Diaphoretick and Sudorifick; *Sal. Prunel. Cr. Tart.* and *Tart. vitriolated* are useful. For Pectorals, *Bals. Sulp. Anisated*, *Liquorice*, *Ol. Amygd. Dul.* *Spir. Sal. Arm.* *Syr. Vinegar*, *Tamarinds*, *Ol. Anis. Pil. Mat.* and a multitude of others. The Balsam of the Red Cedar of this Country, made *per Descensum*, is an excellent Thing in this and many other Cases. I shall not enumerate a multitude of Medicines, all Practical Authors abound with them, though

though few have found the right Method of Administring them, but have often misapplied the best Medicines, as well as the sharpest Lancets, and thereby have much discredited many things which in themselves are very good. I shall conclude with advising all that would practice *Physick*, to take care that they be well instructed in *Natural Philosophy*, and that they understand the Reason of their Practice, that so their Conscience may bear them Witness that they are *clear from the Blood of all Men*, and that their Practice is safe, and has a tendency to promote Health, and not taken up with the mean Views of gaining Estates at the awful Risk of the loss of the dear Lives of their Patients; and let not People think that because a *Quack* or unlearned *Empyrick* may accidentally do some Cures, that therefore their Lives may be trusted in their Hands, for *one Swallow does not make Spring*, and they are likely to miss twice, where they hit once, and have no Judgment to apply good Medicines when they have them. I have not took Pains to prove that a *Fever* is an Idea, because I think it will not be denied by the Learned, any more than that Heat, Cold, Seeing, Hearing, Smelling, Tasting, &c. are Ideas: But if any Gentleman should think the Morbifick Matter is a *Fever*, I would desire him to consult the famous Mr. *Lock's* Essay on *Humane Understanding*, and the learned Dr. *Watts's* Logick.

A Short ²
ESSAY
ON THE
Rattles,
AND
Canker.

By *John Walton*, B. A.
And Practitioner in *Physick*.

Nemo sibi solum Nascitur.

Boston : Printed by *T. Fleet*, at the *Heart & Crown*
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A. L. L.

ESSAY

ON THE

Railroad

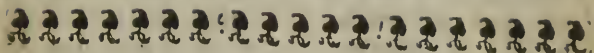
AND

Canal

BY JOHN C. CALHOUN, ESQ.
OF THE SENATE OF THE UNITED STATES

NEW YORK: PUBLISHED BY J. B. ALLEN, 1825.

Entered according to Act of Congress, in the year 1825, in the Clerk's Office of the District Court of the Southern District of New York, by John C. Calhoun, in the name of the Author.



A Short E S S A Y

ON THE

Rattles *and* Canker.

IF we consider the Frame of our Bodies, we shall find they consist of Solids and Fluids; and when any of these are raised above or depressed beneath the Ballance of Nature, that then Health will be annoy'd, and various uneasy Symptoms ensue: So in the Case now to be explained, we may justly conclude, that there are some disagreeable Particles that affect the Lungs and Throat, and hinder the regular Circulation of the Fluids, and destroy the Solids; and that these proceed from an Error in some of the Non-naturals, especially the *Air*, which (as the excellent *Sydenham* has prov'd) contains the Seeds of the most Epidemical Diseases. Now whilst the Air or Breath passes into the minute Branches of the Wind-pipe, and as the Blood circulates through the Lungs,

in Channels that accompany the Tubuli of the Trachea, if either or both of these contain heterogenous Particles that stick in the Lungs, especially if they fill up the small Branches of the Wind-pipe, the Air will soon be obstructed from impregnating the Blood with those Particles that give it a *Momentum*, and keep it from cohering in too bulky Globules; upon which there will ensue Obstructions of the Circulation of the Blood in the Capillary Branches of the Pulmonary Artery and Vein, and the Breath be gradually excluded from entering the Lungs, which must necessarily occasion a Difficulty of breathing, an Inflammation and Fever, and sometimes erosions of the Solids. And according as the Morbifick Particles are shaped, and the place they settle on, so we distinguish the Distemper. If they are very sharp pointed and large, so as to corrode the Solids when crowded against them by the Air on one side in the Trachea, or by the Blood on the other side, or otherways, then we call it the *Canker*; but if they are Sphæroidal, Conical or Cubical, &c. we distinguish them according to their Figures, Cohesions, Bulks, Motions, and Effects consequent thereupon: So if a load of these lie long upon the Lungs, there will be a *Consumption*, and Ulcers breed accordingly, and a *Hectick* ensue. And in case the Obstruction be sudden, great, and principally in the fine Branches

ches of the Wind-pipe, and the Particles not much pointed, but cohere so as to constitute what we call *Tough Phlegm*, then 'tis that which we call the *Rattles*, or *Quinsey* in the Lungs, especially in Children; and is distinguished according to the Nature and Quantity of the Phlegm, and the Noise the Air makes when it endeavours to inflate the Lungs, and the Difficulty in Breathing. But in case the Obstructions seize the Lungs near the Mouth, 'tis called a *Quinsey*. Here it must be observed, that these Obstructions are extensive; for as the Blood swiftly circulates through all parts of the Body, it absorbs some of the Morbifick Particles, and conveys them to different parts of the Body, and dischargeth them in every convenient place, especially where the Glands are most open: Hence the Salival Glands are so often affected, especially with the *Cankery Particles*, and *Scurvy Scrophulous Tumours*.

From what has been said 'tis easy to infer, that the Cure consists in ejecting the Morbifick Matter, and that without too much corrosion of the Solids; and that in order hereunto, those Medicines are best which open the Glands, attenuate the Morbifick Particles, and give a contractile Force to the Fibres, and a *Momentum* to the Fluids. I might here shew, that the corrosive Particles when well divided,
will

will pass the Miliary Glands without corroding the Solids; and that in General, all the heterogeneous Particles may safely be discharged by the Method proposed: But my designed Brevity will only allow me to prescribe in a plain Method some useful Medicines, which if well applied in Season, seldom fail of desired Success, as Reason and Experience plentifully confirm.

For the *Rattles*, take *Merc: Dulc: Pulv: Fallapii* and *Rhab: ana: P. E. quo ad pondus* sufficient for a Dose, *Emetick* and *Cathartick*, to be repeated every Morning if the Patient can bear it: Draw Blisters plentifully behind the Ears, in the Nape of the Neck, and on the Arms; Give a Sweat every other Night, with *Diaphoretick Antimony* in Syrup of *Saffron* and *Treacle Water*; and every other Night give *Lap: Contrayerva* and *Venice Treacle*, in the same Vehicle. Give *Elixir Proprietatis* and *Bals: Sulphur:* annisated by turns, in Syrup of *Vinegar*, *Sugar Candy* and *Sweet Oil*, or *Oil of sweet Almonds*, as often as Nature will bear, viz. a small Dose in every Hour and half; bath the Throat and Breast with *Balsam Sulph:* annisated, and lay on the *Plaster of Frogs* warm: Take the Bark of *Shoemaker's Roots* and *Upland Willow*, Leaves or Tops of *Prim* and *Plantain*, boil these together, into which Decoction put *Myrrh*, *Bole Armenia*,
Burnt

Burnt Allum and *Honey*, with which wash the Mouth and Throat: This is also choice good for Infants common sore Mouths. Take *Sage*, *Lovage*, *Sarnicle* and *Nettles*, make a Decoction, put in *Crem: Tart:* and Drink. Take *Butter*, *Honey*, and *Burnt Allum*, mix, dip in the Finger, or a Rag ty'd on a Stick, Gargle the Throat as deep as may be done with safety. Use all these also in the *Canker*, except the last, and in its Room use *Bals: Sulf: annisated*, and *Bals: Polychrest:* with which also wash the Blisters if sore. Give *Aeth: Min:* once a Day in both *Rattles* and *Canker*. *Oil of Sulph: per Camp:* in *Syrup of Barberries* is useful also: So the *Balsam* of very dry *Red Cedar* is excellent, internally and externally used, and deserves our Notice in many important Intentions.

The Dose for a Man is about Forty Drops, if it be well made, which is after this Manner, viz.

Split the sound and dryest *Red Cedar* into small Sticks, place them perpendicular in a large Iron Pot, so as they stick fast, then bed an Earthen Platter in the Ground, set the Pot bottom upwards on the Platter; Lute the Juncture, pull the Earth round the Pot about Two Inches deep, then make a large Fire upon the Pot, let it burn about Three Hours, then take up the Pot, and your *Balsam* will be in the Platter, which exceeds the *Bals: Peru:*
and

and helps *Fevers, Palsies, Rheumatisms, numb Joints* and *Convulsion Fits*, gives a fine Sweat, and eases the *Tooth-Ach*, if applied to a hollow Tooth.

I shall conclude with directing to let Blood, especially under the Tongue, in Persons who have a Plethora, and Strength to bear it; and let the Patient drink Cordials frequently, especially Syrup of *Saffron* and *Treacle Water*, in which sometimes give *Flowers of Sulphur* and *Coral*. If the Physick don't Work upward, then give *Lockyer's Pill* or Pills bruis'd, or *Ipecacuanha*, or *Resin of Jalap*; and if the *Canker* prevail, give more *Merc: Dul.* so as to cause a Ptyalism, according to the Strength of the Patient.

F I N I S.

